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Sustainability of Education: An Ecopedagogical Approach

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Sustainability of Education: An Ecopedagogical Approach

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Abstract

This article is a call to action and further research. It also suggests that it is important to move from education about sustainability to the sustainability of education. In the tradition of Freire and Giroux, this article examines the commodification of education stakeholders and the impact this has on education. This article also explores how critical theory and ecopedagogy can change how the conversation is occurring within the field of education.

Introduction

Sustainability is the ability to endure. It's a simple definition for a simple concept, one that our ancestors knew and applied to their daily lives. Keep the sources of water clean for drinking. Eat food that provides energy and does not cause disease. Help your family and neighbors in order to create a social network capable of providing long term care and protection. Over the generations, other ideas have taken priority, and the concept of sustainability is now struggling to be recognized as a viable alternative to a consumer lifestyle. Faster food, cheaper wifi, and more parking are priorities that did not exist in the not so distant past. A consumer lifestyle has evolved, and the impacts are defining it as unsustainable. Water, food, even people are commodities to be used towards a profit. The economic and social practices of most countries are unsustainable. Globally, 1.8 billion people drink from an unsafe water source.[1] Indigenous communities in the United States are losing their homes due to rising sea levels[2] as are the people of the Marshall Islands.[3] People are losing their lives as world leaders analyze the definition of genocide[4] and debate the legal rights of women.[5] The results, whether they are acknowledged or not, are effecting everyone.

As an assistant professor of education, I look to my own field for answers regarding sustainability. Any basic search using the popular internet search engine Google will reveal that when the words sustainability and education are used together, science education is the topic that is most often returned. The research in this area focuses on teaching how to utilize the environment in a less destructive manner. Article after article, research center after research center, each one focuses on educating about natural resource use. There is also research dedicated to the idea of building partnerships with the people who actually live on the land[6], and its focus is on teaching about sustainable agriculture and common ownership of land. The research in this area spans a broad area from communal living to small urban community gardens[7]. These are both meaningful topics, but they address the *education of sustainability*, rather than the *sustainability of education*. As an educator, I want to create sustainability within my field so that the education system is perpetuating sustainable relationships rather than utilizing students, parents, and community stakeholders as commodities. In order to do this, we need to rebuild the relationships that have deteriorated due to this commodification.

Critical Theory

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[1] "Drinking-Water," *WHO*, last modified June 2015, http://www.who.int/mediacentre/factsheets/fs391/en/.

[2] Saskia De Melker, "Native Lands Wash Away as Sea Levels Rise," *NewsHour Productions LLC.*, last modified June 1, 2012, http://www.pbs.org/newshour/updates/climate-change-jan-june12-louisianacoast_05-30/.

[3] "Indigenous Peoples in the Pacific Region," *United Nations,* http://www.un.org/en/events/indigenousday/pdf/factsheet_Pacfic_FINAL.pdf.

[4] "How do You Define Genocide?" *BBC*, last modified March 17, 2016, http://www.bbc.com/news/world-11108059.

[5] The White House, "Factsheet: The Violence against Women Act," *Whitehouse.Gov*, Accessed May 15,2016, https://www.whitehouse.gov/sites/default/files/docs/vawa_factsheet.pdf.

[6] "Indigenous Peoples and Sustainable Development in the Canadian Artic," *The Government of Canada*, last modified September 15, 2010, http://www.aadnc-aandc.gc.ca/eng/1100100037493/1100100037495.

[7] "Urban Agriculture-Community Gardening," *MRSC Rosters*, last modified February 26, 2016, http://mrsc.org/Home/Explore-Topics/Parks-and-Recreation/Recreation-and-Other-Programs/Urban-Agriculture-Community-Gardening.aspx.

As an educator and critical theorist, I am interested in the social aspects of education. As such, I am looking for an "educational movement, guided by passion and principle, to help students develop consciousness of freedom, recognize authoritarian tendencies, and connect knowledge to power and the ability to take constructive action."[8]. This is how Giroux defined and founded the educational philosophy of critical pedagogy. It is the basis for how education can combat the commodification of its stakeholders; this commodification is in direct opposition to sustainability. Giroux writes that:

> The real enemy is not consumption per se, but a market-driven consumer society fueled by the endless cycle of acquisition, waste and disposability, which is at the heart of an unchecked and deregulated global capitalism. Under such circumstances, there are few remaining spaces in which to imagine a mode of consumption that rejects the logic of commodification and embraces the principles of sustainability while expanding the reach and possibilities of a substantive democracy[9]

In a search for a sustainable system of education, the building of relationships under a democracy controlled by the people, and not corporate interests, is vital. Giroux goes a step further and writes that "As the line between for-profit and not-for-profit institutions of higher education collapses, the tensions between democratic values and market interests blur and the distinction between education and job training breaks down. Not surprisingly, it has become more difficult for the public to recognize that the problems facing higher education have less to do with corporate management, efficiency, and cost-effectiveness than with the erosion of democratic ideals."[10]

Creating a consciousness of freedom and encouraging the ability to take constructive action are revolutionary ideas that are critical for sustainability. These are concepts that enable societies to look at their communities and decide if their practices are sustainable or not, and change them if necessary. Giroux's writings support empowering communities to make decisions by stating that:

> Democracy is in crisis throughout the world, and one way of addressing this crisis is through modes of education that not only take place in a variety of spheres including public and higher education, but also through a commitment to utopian longings in which we can glimpse communities organized around courage rather than fear, shared human needs rather than amoral values of the market, and moral principles that provoke us to not just hoping, but acting to eliminate human suffering and exploitation while expanding democratic rights, identities, and social relations.[11]

Allowing communities a voice in their futures can be scary for those embracing an unsustainable lifestyle at the expense of others, but it is empowering to those that have been disadvantaged or

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[8] Henry A. Giroux, "Lessons From Paulo Freire," *The Chronicle of Higher Education*, last modified October 17, 2010, http://chronicle.com/article/Lessons-From-Paulo-Freire/124910/.

[9] Henry A. Giroux, "Commodifying Kids: The Forgotten Crisis," *Truthout*, Last modified April 3, 2009, http://www.truth-out.org/archive/component/k2/item/83374:commodifying-kidstheforgotten-crisis.

[10] Henry A. Giroux, "Higher Education is More Than a Corporate Logo," *Dissindentvoice.org*, last modified January 26, 2004, http://www.henryagiroux.com/online_articles/corporate_logo.htm.

[11] Ibid.

oppressed by that exact same system. This is the kind of philosophy that will allow education to not only endure, but produce a global society that creates a system that allows other living things, human and nonhuman, to also endure.

Freire's *Pedagogy of the Oppressed* is considered one of the founding texts of critical pedagogy, and helps explain how the relationship between the oppressed and the oppressors can be repaired. Of importance to my search for a sustainable education model is Freire's writing on the relationships between colonizer and colonized and between the student and teacher. As an educator, I see these power relationships demonstrated on a daily basis. Freire noted these discrepancies in Brazil, but they are just as relevant in the United States where teachers are overwhelmingly white and female[12] while the student population is becoming increasingly diverse.[13] Rather than place responsibility on just one group, Freire calls for discussion and cooperation across both sides of the dichotomies of power.[14] Colonized and colonizer, oppressed and oppressor, teacher and student, are all effected by the inequality of relationships. This building of authentic relationships is important to creating a sustainable education system, and can be expanded to include not only the people involved, but also the place.

Indigenous/Traditional Societies

I believe in the slogan "think globally, act locally." While it is true that I have found Freire's ideas echoed throughout traditional societies, I kept true to this slogan in order to keep true to critical theory and ecopedagogy. Friere's writing is based on his work and observations in Brazil. From Brazil it spread across the globe through the writings of Henry Giroux, Roger Simon, David Livingstone, Peter McLaren, Joe Kincheloe, Shirley Steinberg, and Ira Shor. Each critical theorist worked with and built upon the work of each other to address the needs of where they were located. Each time, critical pedagogy changed and adapted to meet the needs of that time and place. In this manner, critical pedagogy serves a diverse global population. As Giroux states, "I think it is best to think of critical pedagogy as an ongoing project instead of a fixed set of references."[15] Keeping with the intent behind critical pedagogy, I looked for a reference point within the United States. American Indians have a pronounced historical dichotomy of power with other Americans and are continuously under pressure to accept colonization. Within these power struggles and cultures with a different relationship to the Earth, the first place I looked for a practical application of ecopedagogy is the indigenous communities of the United States.

The phrase "all my relations" has become commercialized and is an example of the commodification of traditional indigenous knowledge. However, in light of ecopedagogy's reflection of this world view of interconnectedness, its continued relevance to sustainability becomes more apparent. According to the International Council of Thirteen Indigenous Grandmothers, "all my relations is a worldview of interconnectedness and oneness that deserves attention during these difficult times."[16] While the origins of this popularized phrase is in

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[12] "Table 209.10. Number and Percentage Distribution of Teachers in Public and Private Elementary and Secondary Schools," *National Center for Education Statistics*, last modified July 2013, https://nces.ed.gov/programs/digest/d13/tables/dt13_209.10.asp.

[13] "Racial/Ethnic Enrollment in Public Schools," *National Center for Education Statistics*, last modified May 2016, http://nces.ed.gov/programs/coe/indicator_cge.asp.

[14] Paulo Freire, *Pedagogy of the Oppressed*. (New York: Continuum, 2000).

[15] "A Critical Interview with Henry Giroux," *Global Education Magazine*, last modified January 30, 2016, http://www.globaleducationmagazine.com/critical-interview-henry-giroux/.

[16] Unci Rita, "Mitakuye Oyasin (All My Relations)," *International Council of Thirteen indigenous Grandmothers*, last modified 2016, http://www.grandmotherscouncil.org/mitakuye-oyasin-all-my-relations.

Lakota prayer, the idea that we are related is not is not isolated to Lakota speakers or indigenous people in general. The idea that we are all related, human and nonhuman, animate and inanimate, and that were are dependent upon one another is a concept that modern Western science is embracing. Food chains have become food webs and agricultural sciences stress the need for diversity in crop growth.[17] Even theoretical sciences such as string theory are showing that we are all connected in ways that have yet to be understood, such as by attempting to unify electromagnet force, strong nuclear force, weak nuclear force, and gravity into one theory.[18] This kind of science or way of understanding the world can be hard to implement in an unsustainable society. To begin the process towards this understanding, I look to another indigenous phrase that has become commercialized, "the seventh generation."

In order to bring us back to our environment and the beings who inhabit it, Vine Deloria, Jr. (Standing Rock Sioux), stated that the seven generations we are to protect are the seven we are most connected to: our great grandparents, grandparents, parents, our generation, our children, grandchildren, and great grandchildren. As David Wilkins (Lumbee) writes, "Even if we aren't fortunate enough to have been in the physical presence of those who came before us, we usually have stories, songs, and photos that have been shared so that we feel a connection. We also want to make sure our kids and grandkids are healthy, safe and aware of where they come from. So, counting our own generation—ourselves, siblings, and cousins—we are accountable to those seven generations, not some imagined futuristic peoples two hundred years down the road."[19] The seventh generation has been commercialized to the point of even being used to sell dishwashing detergent, but the message is reaching a larger audience. Users of this phrase exhort us to remember the seventh generation, our hoped for descendants who will exist between 150 and 200 years from now. While this is a good idea to keep in mind, this concept again divorces us from the here and now. When we seriously look at everyone who is descended from the same great grandparents, we realize we have more cousins than we first imagined. If we then truly adopt the concept of being responsible to the seven generations, then it is no longer us and them. It is we, and we see those familial connections in everyone and everything. The idea of our children versus their children is echoed in Lisa Delpit's *Other People's Children: Cultural Conflict in the Classroom.* Her research demonstrates the difficulties minority and low income students face when being taught by someone of a different ethnic, racial, or socioeconomic background.[20] The philosophy behind the seventh generation suggests that these difficulties can be overcome by doing away with the idea that low income and minority students are *other people's children.*

Oren Lyons (Onondaga) has said that indigenous communities do not hold secrets about sustainable living, just common sense.[21] John Mohawk (Seneca) would tell people to visit with the Haudenosaunee (People of the Longhouse, the Iroquois Confederacy), learn, then go back to

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[17] "What is the Difference between a Food Chain and a Food Web?" *Web Agency Marketing Media,* Accessed March 30, 2016, https://sciencebob.com/what-is-the-difference-between-food-chain-and-a-food-web/.

[18] Andrew Zimmerman Jones, "String Theory for Dummies," *John Wiley & Sons Inc*., Accessed March 30, 2016, http://www.dummies.com/how-to/content/string-theory-for-dummies-cheat-sheet.html.

[19] David Wilkins, "How to Honor the Seven Generations," *Indian Country Today*, last modified June 18, 2015, http://indiancountrytodaymedianetwork.com/2015/06/18/how-honor-seven-generations.

[20] Lisa D. Delpit, *Other People's Children: Cultural Conflict in the Classroom, (*New York: New Press, 1995).

[21] Harvey Arden and Steve Wall, *Wisdomkeepers: Meetings with Native American Spiritual Elders*, 1st ed. (Oregon: Beyond Words Publishing, 1990).

tell their own peoples' stories.[22]   This is important, because sustainable living and education is not an American Indian only concept. Traditional and indigenous communities around the world share similar concepts, but this does not leave out populations no longer considered indigenous. Most major world religions share similar ideas. Catholicism has the writings and life of St. Francis, urging us to be stewards of the environment and to care for the poor. Pope Francis puts this into practice on a daily basis, most recently with his publication of *Laudato Si: On Care For Our Common Home*, or his Easter announcements to care for the poor and displaced. Even the American Council of Bishops has a department that "educates and motivates Catholics to a deeper reverence and respect for God's creation, and encourages Catholics to address environmental problems, especially as they affect poor and vulnerable people."[23]   Islam teaches about the interconnectedness of life through water[24], while Buddhism and Jainism are known for their teachings on nonviolence towards all forms of life.

Thinking locally provides an indigenous viewpoint from which to view sustainability, both socially and environmentally. This viewpoint is in direct opposition to the commodification of people and relationships, and is reflected by non-indigenous writers such as Delpit who study education. When major world religions are taken into consideration, there is even more support for not exploiting people or the environment. These viewpoints can be combined in theory developed out of critical theory called ecopedagogy.

Ecopedagogy

As a critical theorist, Paulo Freire, like Henry Giroux, is an obvious influence on my search for a sustainability model. His scholarly works developing critical theory later led him to the early stages of ecopedagogy, which Freire was working on when he died. Critical pedagogy was spread across the globe by many scholars, and ecopedagogy was continued by many of the Freire Institutes and Freirean Associations. It influenced the Earth Charter, which is:

> a declaration of fundamental ethical principles for building a just, sustainable and peaceful global society in the 21st century. It seeks to inspire in all people a new sense of global interdependence and shared responsibility for the well-being of the whole human family, the greater community of life, and future generations. It is a vision of hope and a call to action. The Earth Charter is a product of a decade-long, worldwide, cross cultural dialogue on common goals and shared values.[25]

As a continuation of critical theory, ecopedagogy is the direction sustainable education must take. As a critical theorist I accept that these relationships are situated in an environmental context. I cannot divorce a person, or their perceptions of each other, from the place and time in which they live. Researchers need a temporal and geographic context within which to understand people and their perceptions. With this in mind, a sustainable education system must care not only for the person, but also for that which surrounds the person. Freire states this importance when saying, "It is urgent that we assume the duty of fighting for the fundamental

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[22] John Mohawk. "The Warriors who Turned to Peace," *Yes!Magazine*, last modified Nov 11, 2004, http://www.yesmagazine.org/issues/healing-resistance/the-warriors-who-turned-to-peace

[23] "Environment/Environmental Justice Program," *United States Conference of Catholic Bishops*, accessed March 30, 2016, http://www.usccb.org/issues-and-action/human-life-and-dignity/environment/index.cfm.

[24] Ibrahim Ozdemir, "An Islamic Approach to the Environment," *Ibrahim Ozdemir,* last modified 2002. Accessed March 30, 2016,http://www.islamawareness.net/Nature/environment_approach.html.

[25] "Earth Charter," Earth Charter Associates, Accessed March 30, 2016, http://earthcharter.org/.

ethical principles, like respect for the life of human beings, the life of other animals, the life of birds, the life of rivers and forests. I do not believe in love between men and women, between human beings, if we are not able to love the world."[26] In the current economic and political climate, these statements may not be popular, or seem too esoteric for society to accept. When people are being commodified, it is easy to imagine the world as a resource to exploit as well. However, to ignore the possibility of a situation where people and their environment could work together toward a common goal for the benefit of all does not make sense.

Application of Ecopedagogy to Education

In order to achieve these goals, a methodology is needed to not only present this information, but to transform information into a sustainable model. A useable framework can be found in McNaughton's research on education for sustainable development (ESD). While her research focuses on how drama can be used to teach about ESD, she does provide a framework from which others can build their own models. Her research revealed that there are six pedagogical themes to the effective delivery of ESD. She states that effective ESD "should be: holistic; active and participative; based on and in the environment; focused on values; based on action competence; and systemic."[27] Building off of this theme, researchers can develop a framework to not only explore the *education of sustainability,* but also explore the *sustainability of education.* Utilizing these themes to create a framework, the field of education can develop a methodology for building a sustainable system.

Holistic Learning

The first of the themes mentioned by McNaughton is holistic learning. The students in her research "crossed the boundaries imposed by traditional subject groupings and allowed children to move across the disciplines as they learned about aspects of their world."[28] This type of holistic learning is necessary for our students to develop an authentic relationship with the Earth and those that live here. Teachers need to create experiences that holistically engage the students and demonstrate the relevance of the learning objective, we are able to create a lasting, sustainable effect.

As the writings of Freire and Giroux indicate, a holistic learning experience will not be easy to create. As the free market system continues to integrate itself into the educational system, education will come more and more to resemble job training rather than a system to teach critical thinking. In order to create a holistic learning experience, the education system would also need to include community stakeholders: parents, grandparents, and neighbors in addition to the business leaders and possible future employers. Interacting with the stakeholders will allow students to see diverse viewpoints, put today's experiences into a historical perspective, and learn about possible future trends. The holistic learning experience would also create for them a social network of support for which they could turn to for support and advice.

Active and participative

McNaughton also calls for active and participative learning. She writes that "pupils should engage in critical, investigative, discursive, open-ended tasks that will challenge them intellectually and engage them emotionally."[29] For learning to be relevant, the students need to

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[26] Paulo Freire, *Pedagogy of Indignation*, (Boulder: Paradigm Publishers, 2004).

[27] Marie Jeanne Mcnaughton, "Educational Drama in Education for Sustainable Development: Ecopedagogy in Action," *Pedagogy, Culture & Society* 18, no. 3 (2010): 289-308.

[28] Ibid., 292.

[29] Ibid., 292.

connect to the lessons. In order to do this, an emotional response is necessary. Dry lessons, that are separate from the students' lived experiences, will continue to produce a society that is disconnected and fails to see relevance in anything.

As the commodification of education continues, active learning means classroom activities that mirror future expected job opportunities. This can lead to institutionalized oppression, as pointed out by Freire, based on the educator's perceptions of the students' future job opportunities. *Those* students get to focus their attention towards one kind of market, while *our* students apply the concepts towards another. This does not work towards sustainability, and actually works to hamper possible progress.

Focusing on the job market also leads educators to ignore students' creativity and ability to apply the lessons in new and interesting ways. To address McNaughton's call for open-ended tasks that challenge the students, educators need to address their expectations for an end product. When students apply the lessons and use their lived experiences to do so, it creates an individualized end product that is engaging – both intellectually and emotionally. This level of engagement connects with them and creates the desired sustainability.

Based on and in the environment

The third theme McNaughton identifies is education based on and in the environment. McNaughton's research discusses methods for substituting drama for actually visiting sites too remote for an actual field trip. Simulations are a valuable tool, and are often used in education courses to create a K12 classroom environment. McNaughton also writes about the importance of "field visits into the local and wider environment."[30] For educators, conducting field experiences is an invaluable experience that allows them to connect to the classes they may one day teach.

Field experiences and observing classrooms is important for educators, but it still allows them to remain safely detached from the students and communities. In order to be effective, teachers, and their curriculum, needs to be based on and in the environment. For teachers who are not a part of the community they teach in, this can be a challenge. While they will never be from there, they will never be indigenous to that place, there are steps they can take. Wildcat and Deloria, Jr. write about indigenizing education. Their writings reflect on the importance of being connected to a place, and the importance of reconnecting native students to the land.[31] I would suggest brining this metaphor to any education student. No lesson, course, or program of study can make a student indigenous to a place. However, a course can introduce a student to a place and the people that live there. A program of study can develop a student into a community resource, and build connections that are invaluable to the learning process. If students are not indigenized, if they do not connect to the place and people where they will teach, they will always be the outsider. As outsiders they will not have the same concern or effectiveness as teachers. The first theme of holistic learning can assist in correcting this behavior and allowing educators a better chance of connecting to the community in which they teach.

Focused on values

McNaughton writes that the fourth theme is values based education. She writes that "at the heart of sustainable living there must be a set of values, held by individuals and by society, by

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[30] Ibid., 292.

[31] Vine Deloria Jr., and Daniel R. Wildcat, *Power and Place: Indian Education in America*. (Golden, CO: Fulcrum Publishing, 2001).

which they try to live and make choices."[32] In order to create a sustainable education system, these values must be identified and codified by local communities. No two communities, like no two individuals, will be the same. Each will have their own experiences and priorities, and that will dictate the values set forth by the community and for education to not only reflect, but sustain. It is when education reflects the values set forth by those not of the community, such as textbook companies or the creators of standardized tests, that the education system fails to support the ones it is created to sustain.

It is the reflection of other's values that makes critical theory and ecopedagogy relevant to a discussion on sustainable education. As Freire states, the oppressed and the oppressors, the colonized and the colonizers, the students and the teachers, must come together to discuss what the community values. Rather than focus on production and profit margins, educational systems must redefine their approach to teaching and utilize instructional materials that support and promote the community's values. If the community's values are not supported, and are instead marginalized and challenged, the system is no longer sustainable for that community.

Action competence in the environment

The fifth theme identified by McNaughton is action competence in the environment. The idea that "pupils should be encouraged to be active participants in the care and stewardship of the local and global aspects of the world in which they live"[33] is one that demands students be engaged and care. As the fifth theme it is understandable that, after learning about the local communities, working with the local communities, and working to connect with and become a resource for the community, students are expected to become active in the care and stewardship of their world.

While this seems like a defined and measurable goal, applying it will take the longest amount of time. The system of commodifying people and the environment has influenced every aspect of young people's lives. It will take time and exposure to new approaches for them to learn about their roles as stewards, and what stewardship truly means. As a long term approach with community support and involvement, encouraging those involved to participate and care is a possibility. However, it is one that leads to the sixth theme identified by McNaughton.

System approaches to ESD

The last theme McNaughton identifies is that of a systemic approach to ESD. She, correctly, writes that the benefits of ESD "will be lost if established structures within the education system stop this pedagogy from taking root and flourishing."[34] This indicates that creating a sustainable education system cannot be established through one lesson plan or even by one teacher. Creating a sustainable education system will need the involvement of all of the teachers and all of the administrators. It will also necessitate the involvement of the students, parents, and community stakeholders. When everyone with input into the education system is supporting a sustainable model, then it will have a chance at flourishing.

Call for Further Research

As a critical theorist, I rarely believe research is finished. A popular phrase I hear overused by undergraduate students explains why I feel this way: the struggle is real. The struggle is very real and ongoing. Combing through the literature provides a rationale and a framework for applying an ecopedagogical approach to education. Rather than develop another system for

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[32] Marie Jeanne Mcnaughton, "Educational Drama in Education for Sustainable Development: Ecopedagogy in Action," *Pedagogy, Culture & Society* 18, no. 3 (2010): 289-308.

[33] Ibid., 293.

[34] Ibid., 293.

educating about sustainability, I am calling for a system of sustainable education. This system needs to apply McNaughton's framework on a broader scale to the field of education…and yet very specifically in regards to geographic location. Further research should also apply ecopedagogy and critical theory to the field of sustainability studies in order to revise how we view sustainability and who we allow to particpate in the conversations.

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